

# Work Order ID 52628

October 5, 2009 9:51:09 AM

Page 1

Item ID: D3140-57

Accept

Revision ID: F

Item Name: Doubler Kit

Setup Start

Stop

Start Date: 10/05/09 Start Qty: 1.00

Cust Item ID:

Required Date: 10/09/09 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: *CL*

Date: *09/10/05* Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

100

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

*9/10/08* *TD SL*

110

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

*2507/10/08*

*(FC) /*

120

Identify as per dwg & Stock Location: *X*

0.00



Packaging

Memo

0.00

Packaging

*ship to deltek  
house on spacedoor.  
P/O: 10435*

*10/10/08 (1)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 52628

October 5, 2009 9:51:09 AM



Page 2

Item ID: D3140-57

Accept



Setup Start



Revision ID: F

Stop



Item Name: Doubler Kit

Start Date: 10/05/09 Start Qty: 1.00



Cust Item ID:

Required Date: 10/09/09 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/10/13

MF 09-10-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

October 5, 2009 9:51:09 AM

Page 1

Work Order ID: 52628

Parent Item: D3140-57RevF

Parent Item Name: Doubler Kit



Comments:

Start Date: 10/05/09

Required Date: 10/09/09

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
S D3140-09RevF x 		Manufactured	No			100	Each	0.0000	1.0000			
Doubler Assembly												
S D3140-101RevF ✓ 		Manufactured	No			100	Each	3.0000	2.0000			
Doubler												

52633 SP

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

3

50296

3

S D3140-241RevF ✓  


Manufactured No

100

Each

4.0000

1.0000

Doubler

56296 SO  
+ 1 B 50 296  
C209/10/20

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

4

36731

4

S D3140-301RevF ✓  


Manufactured No

100

Each

4.0000

2.0000

Doubler

36731 SO  
9/10/8

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

4

34381

1

51771

3

5777/  
B51771 x1  
C209/10/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

October 5, 2009 9:51:09 AM

Page 2

Work Order ID: 52628

Parent Item: D3140-57RevF

Parent Item Name: Doubler Kit



Comments:

Start Date: 10/05/09

Required Date: 10/09/09



Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3140-87RevF ✓  Doubler		Manufactured	No			100	Each	2.0000	1.0000 			



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	2	
35155	2	

35155 SL

D3140-91RevF ✓  Doubler		Manufactured	No			100	Each	1.0000	1.0000 			
--	--	--------------	----	--	--	-----	------	--------	---	--	--	--

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1	
52203	1	

52203 SL

D3140-95RevF ✓  Doubler		Manufactured	No			100	Each	11.0000	3.0000 			
--	--	--------------	----	--	--	-----	------	---------	---	--	--	--

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	11	
34375	1	
52265	10	

52265  
9/16/8 SL  
2x13 52265 C209110/20

October 5, 2009 9:51:09 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
6/2								

NOTE: Date & initial all entries



# Picklist Print

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Page 3

Work Order ID: 52628

Parent Item: D3140-57RevF

Parent Item Name: Doubler Kit


Comments:

Start Date: 10/05/09

Required Date: 10/09/09

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3140-97RevF ✓  Doubler		Manufactured	No			100	Each	3.0000	1.0000			

Warehouse  
Location

Loc Qty

Loc Code


Main Warehouse

ST

3


37773

3

D3140-99RevF ✓  Doubler		Manufactured	No			100	Each	0.0000	1.0000			
--	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

37773 ✓

~~52632~~ & B36761

D3140-103RevF ✓  Doubler		Manufactured	No			100	Each	5.0000	1.0000			
---	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

Warehouse  
Location

Loc Qty

Loc Code


Main Warehouse

ST

5

34377

5

D3140-105RevF ✓  Doubler		Manufactured	No			100	Each	1.0000	1.0000			
---	--	--------------	----	--	--	-----	------	--------	--------	--	--	--

34377 ✓

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

1

34379

1

34379 ✓

October 5, 2009 9:51:09 AM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

DESIGN #	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED JH	APPROVED #	DRAWING NO. D3140	REV. F SHEET 1 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS
A	02.04.18	NEW ISSUE	
B	03.01.23	REMOVE -65/-81/-83; ADD -301/-303	
C	04.11.08	CHANGE DELASTEK SPEC. TEC-77; ADD PART MARKING; ADD NOTES 11, 12, 13; CHANGE ANGLE -95/-97/-98 TO 106°	
D	05.11.23	ADD -103/-104/-105/-106; REMOVE -67	
E	06.06.09	1.75 WAS 1.88, 4.75 WAS 4.13 ON -08/-07, 1.00 WAS 1.20 ON -09/-10	
F	06.10.06	ADD NOTE 14; CORRECT PART TITLE, NOW D3140-09/-92/-104 SHOWN D3140-10/-91/-103 OPPOSITE	

**RELEASED**

06.11.13

QTY -05	QTY -06	QTY -07	QTY -08	QTY -09	QTY -10	PART NUMBER	DESCRIPTION
X						D3140-05	DOOR
	X					D3140-06	DOOR
		X				D3140-07	DOOR
			X			D3140-08	DOOR
		1		X		D3140-09	DOUBLER ASSEMBLY
			1		X	D3140-10	DOUBLER ASSEMBLY
3	3					D3140-57	PAD
1	1					D3140-59	PAD
2	2					D3140-61	PAD
2	2					D3140-63	PAD
		1	1			D3140-69	PAD
		1	1			D3140-71	PAD
		1	1			D3140-73	PAD
		1	1			D3140-75	PAD
		1	1			D3140-77	PAD
		1	1			D3140-79	PAD
				1	1	D3140-85	ANGLE
1	1					D3140-87	DOUBLER
				1	1	D3140-89	DOUBLER
		1				D3140-91	DOUBLER
			1			D3140-92	DOUBLER
3	3					D3140-95	DOUBLER
1						D3140-97	DOUBLER
	1					D3140-98	DOUBLER
		1	1			D3140-99	DOUBLER
		2	2			D3140-101	DOUBLER
		1				D3140-103	DOUBLER
			1			D3140-104	DOUBLER
		1				D3140-105	DOUBLER
			1			D3140-106	DOUBLER
1	1					D3140-241	DOUBLER
1		1				D3140-301	DOUBLER
	1		1			D3140-303	DOUBLER
				5	5	MS20426AD3-4	RIVET

C20910/05  
W/D: 52628

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DESIGN #	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED JH	APPROVED #	DRAWING NO. D3140	REV. F SHEET 2 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS

1

COMPOSITE LAYUP & BONDING I.A.W. DELASTEK PROCESS SPEC. TEC-77  
MATERIAL STORAGE & HANDLING TO BE I.A.W. DART QSI 006  
MAIN LAYUP USES FIBERCOTE E-761/7781 EPOXY FIBERGLASS.  
FILL WITH EPOCAST 87269 OR MAGNOBOND 77 A & B AND MA560 FOAM/ NB-51/30 FOAM

2

FINISH: DUPONT HIGHBUILD GREY PRIMER 1144-S

3

MAKE PARTS IN ACCORDANCE WITH THE FOLLOWING TOOLS/MOLDS:

PART	TOOL
D3140-05	B30-23000-01T
D3140-06	B30-23000-02T
D3140-07	B30-23000-03T
D3140-08	B30-23000-04T
D3140-57	B30-23000-57T
D3140-61	B30-23000-61T
D3140-63	B30-23000-63T
D3140-69	B30-23000-69T
D3140-71	B30-23000-71T
D3140-73	B30-23000-73T
D3140-75	B30-23000-75T
D3140-77	B30-23000-77T
D3140-79	B30-23000-79T
D3140-89	D3140-89T1
D3140-301	D3140-301T1
D3140-303	D3140-303T1

2025

RELEASED  
06.11.13

4

MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK (M2024T3S.032)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

5

MATERIAL: 2024-T3 (QQ-A-250/4) 0.020 THICK (M2024T3S.020)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

6

MATERIAL: 5052-H32/H34 (QQ-A-250/8) 0.040 THICK (M5052H32S.040)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

7

MATERIAL: POLIMEX TR75 1" THICK 4.5 LB KLEGECELL

8

ALL DIMENSIONS IN INCHES

9

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

10

MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (M6061-T6S.063)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

11

DOUBLER TO SIT ON TOP OF FOAM AT THIS LOCATION

12

DOUBLER TO BE RECESSED FLUSH INTO FOAM AT THIS LOCATION

13

RUBBER STAMP WITH DART P/N D3140-05/-06/-07/-08 USING MIL-STD-130

14

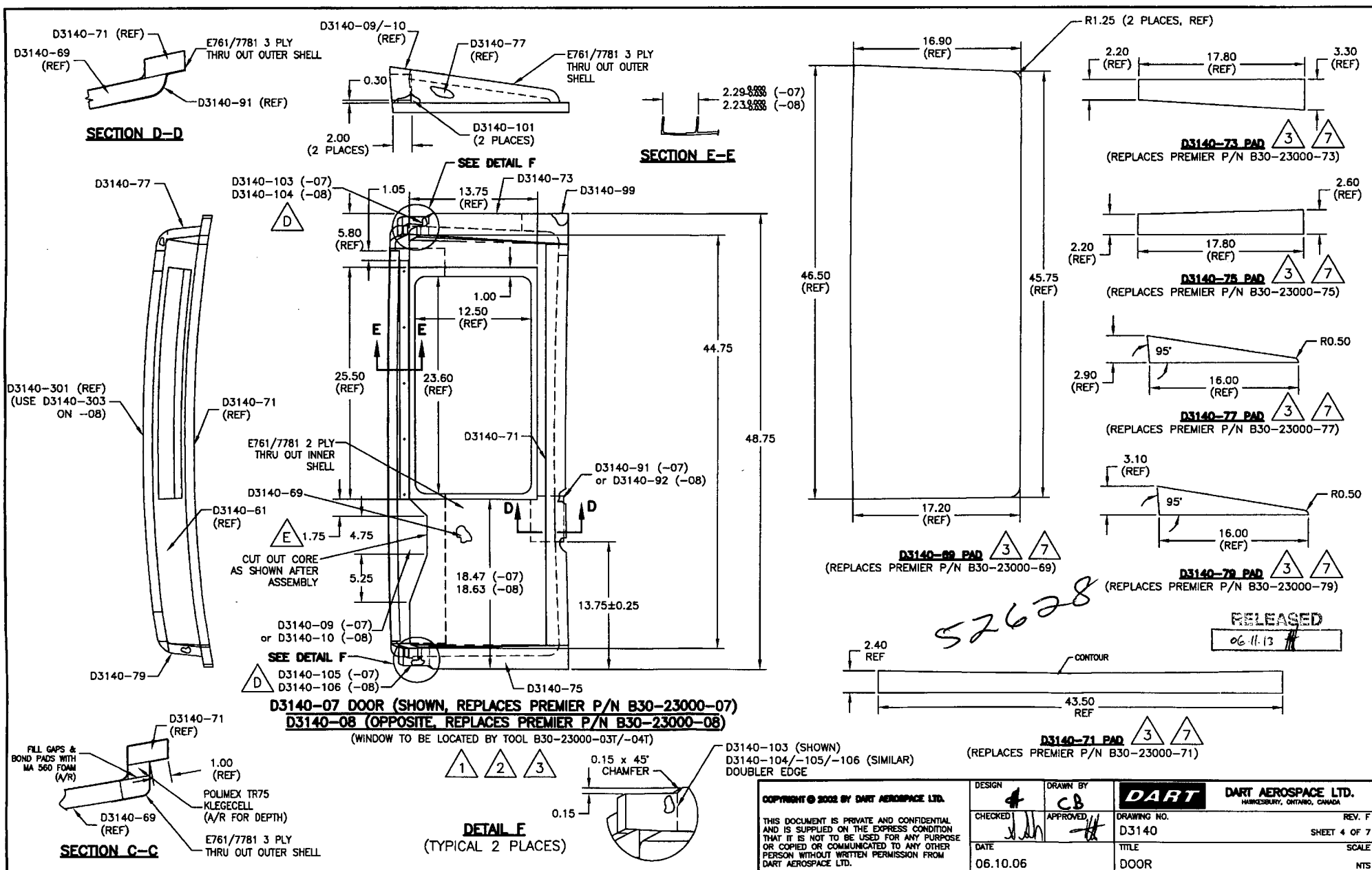
PARTS MUST BE SCUFFED WITH 80 GRIT SANDPAPER PRIOR TO ACID ETCH AND  
ALODINE PER DART QSI 005 4.1

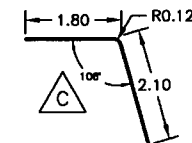
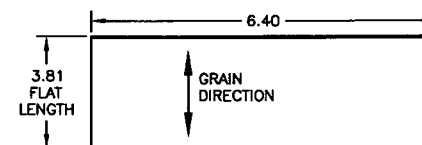
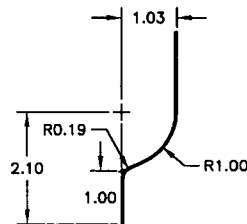
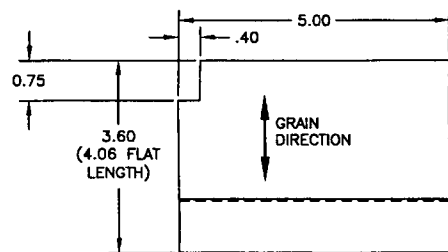
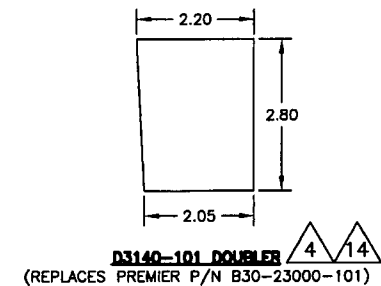
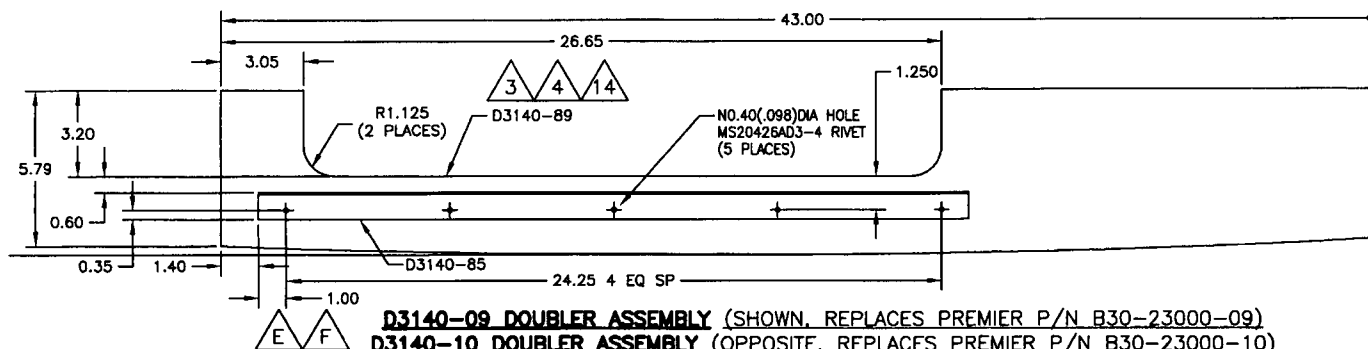
F

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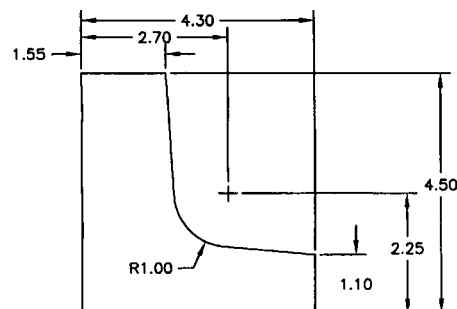




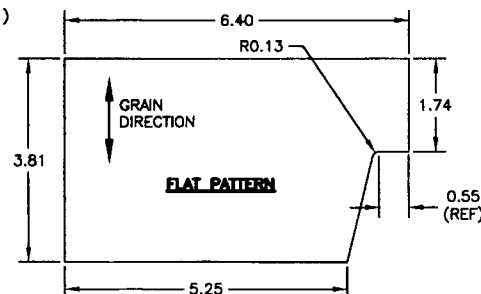
D3140-91F FLAT PATTERN  
(USE TO MAKE D3140-91/-92 DOUBLERS)

D3140-92 DOUBLER (SHOWN, REPLACES PREMIER P/N B30-23000-92)  
D3140-91 DOUBLER (OPPOSITE, REPLACES PREMIER P/N B30-23000-91)

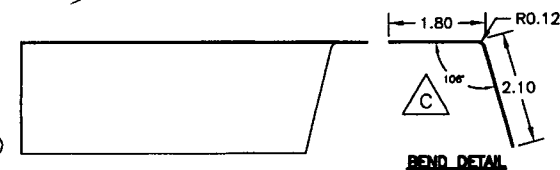
D3140-95 DOUBLER (REPLACES PREMIER P/N B30-23000-95)



D3140-99 DOUBLER (REPLACES PREMIER P/N B30-23000-99)



D3140-97F FLAT PATTERN  
(USE TO MAKE D3140-97/-98 DOUBLERS)



D3140-97 DOUBLER (SHOWN, REPLACES PREMIER P/N B30-23000-97)  
D3140-98 DOUBLER (OPPOSITE, REPLACES PREMIER P/N B30-23000-98)

52628

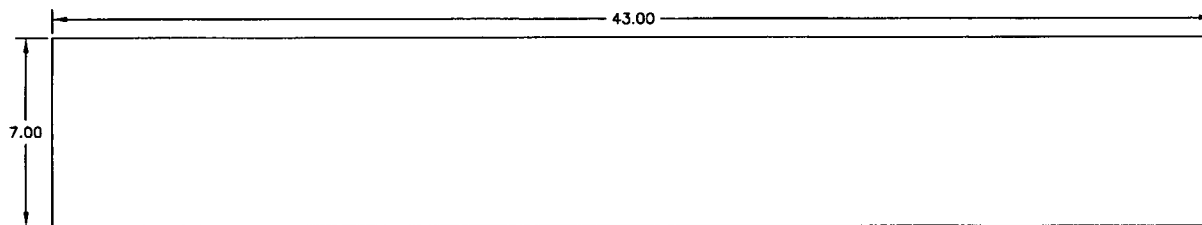
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06 11 13

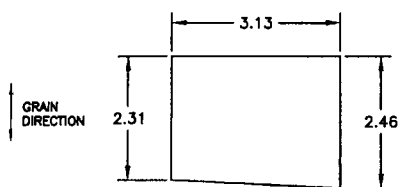
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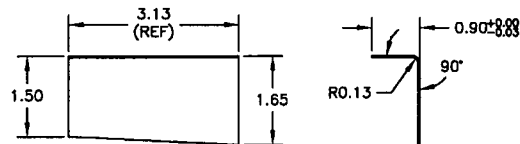
DESIGN #	DRAWN BY CB	DART DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA	REV. F
CHECKED JH	APPROVED JH	DRAWING NO. D3140	SHEET 5 OF 7
DATE 06.10.06	TITLE DOOR	SCALE NTS	



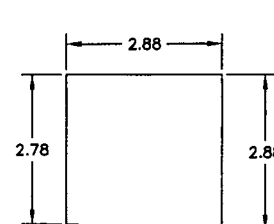
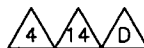
**D3140-87 DOUBLER**   
(REPLACES PREMIER P/N B30-23000-87)



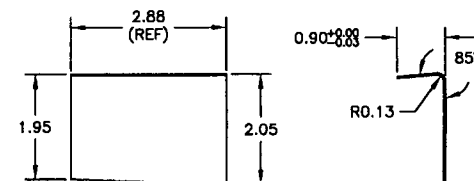
**D3140-105F FLAT PATTERN**  
(USED TO MAKE D3140-105/-106 BRACKETS)



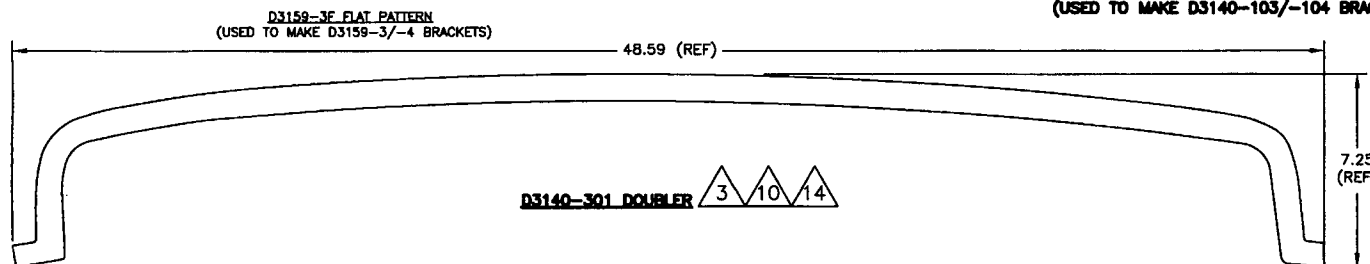
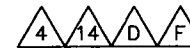
**D3140-105 DOUBLER**  
**D3140-106 OPPOSITE**



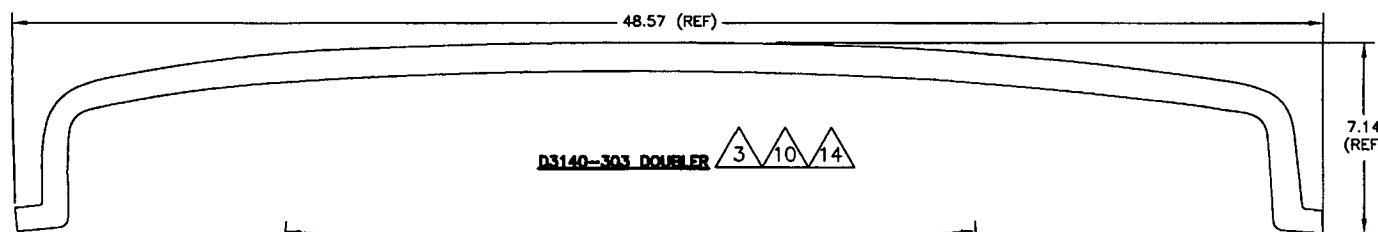
**D3140-103F FLAT PATTERN**  
(USED TO MAKE D3140-103/-104 BRACKETS)



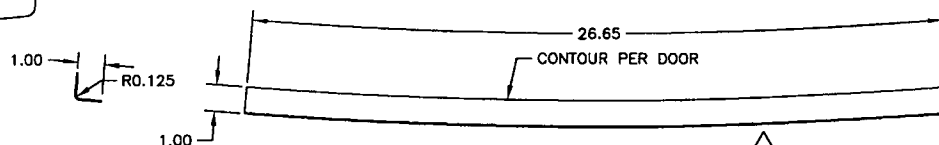
**D3140-104 DOUBLER**  
**D3140-103 OPPOSITE**



**D3140-301 DOUBLER**



**D3140-303 DOUBLER**



**D3140-85 ANGLE**   
FLAT PATTERN: 26.65" x 1.90"  
(REPLACES PREMIER P/N B30-23000-85)

RELEASED

06.11.13

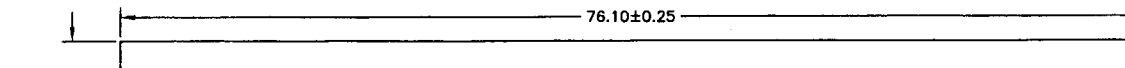
52628

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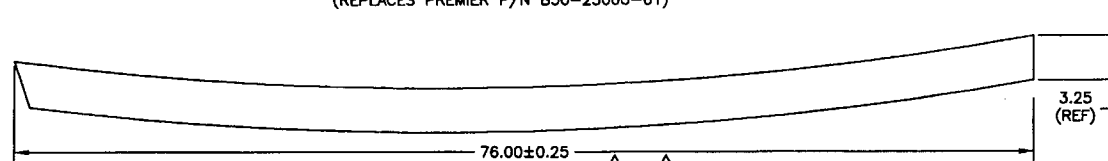
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DESIGN		DRAWN BY	CB	<b>DART</b>	DART AEROSPACE LTD.
CHECKED		APPROVED		DRAWING NO.	REV. F
DATE	06.10.06	TITLE	DOOR		SHEET 6 OF 7
					SCALE
					NTS

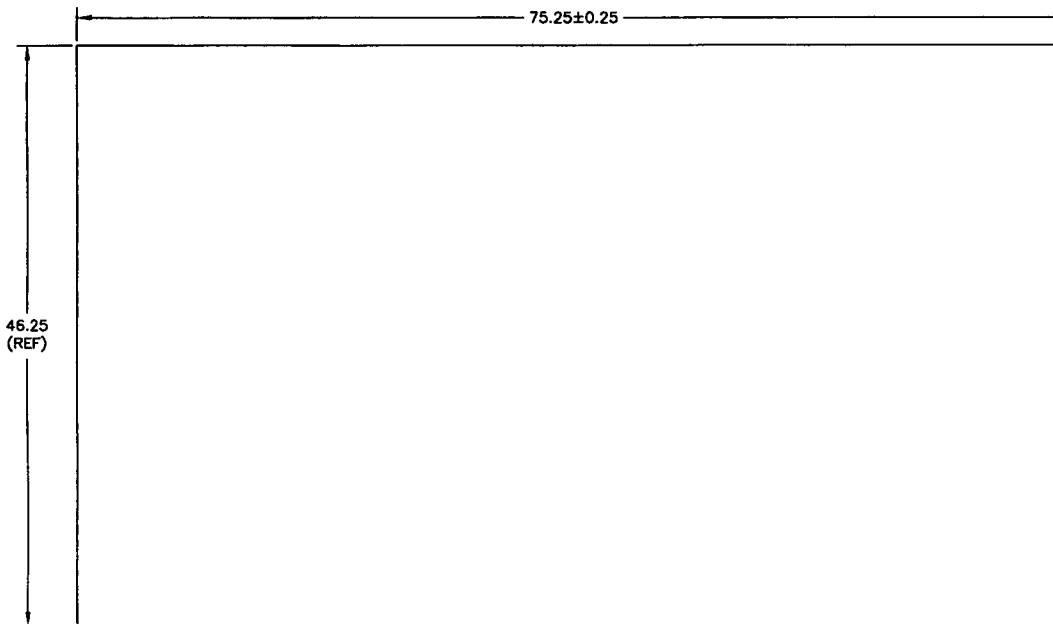




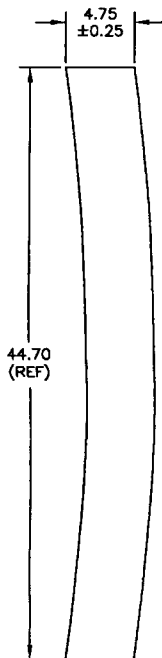
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(REPLACES PREMIER P/N B30-23000-61)



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(REPLACES PREMIER P/N B30-23000-63)

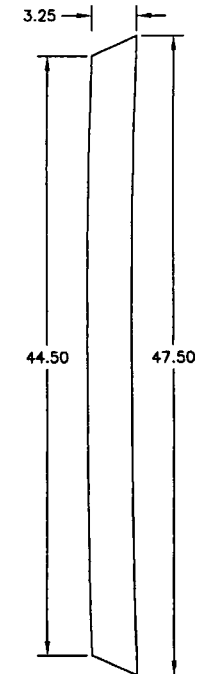


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**D3140-57 PAD**  
(REPLACES PREMIER P/N B30-23000-57)

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**D3140-241 DOUBLER** 5 14  
(REPLACES PREMIER P/N B30-23000-241)

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